François and **Paul Ellenberger, Jean Fabre** and **Christiane Mendrez**. - *Two new slabs of vertebrate trackway fossils discovered in Basutoland (southern Africa).*

In previous notes, we signaled the variety of and interest in the vertebrate footprints in the Stormberg beds of Basutoland, probably of Triassic and Rhaetian age. A new expedition of the National Center for Scientific Study (summer 1963) allowed us to study two slabs of undescribed footprints, which will finally be the object of a more complete description.

I. *Moyeni slab* (Quthing district). This very good slab discovered by one of us (P.E.) was meticulously cleaned and removed, along with a partial cast. 25 m in length and 5-6 m in width, it includes more than 470 individual footprints. It is located stratigraphically near the middle of the Red Beds, where it is the first of its kind, near the *Tritylodon* bed that our studies (with L. Ginsburg) allowed us to identify in the south of the country.

We observed:

a) a splendid trackway (G in the fig.; 25 footprints) of a habitually bipedal dinosaur (pseudo-genera *Eubrontes* or *Grallator* according to Lull); this type persists practically unchanged throughout the Stormberg.

b) trackways of bipedal, tridactyl reptiles of moderate size with shorter steps and more spread digits; they show some interesting details: traces of a dragging tail (see C and D in the fig.); imprints of hands (occasionally quadrupedal); in the latter case, thanks to the uncommon dimensions and the perfect preservation of the slab, an ancient bank of sand lying awash, one can note some remarkable features. Thus the large trackways (A) shows us first the animal swimming in deep water, then paddling in a quadrupedal position, dragging widely spread hands and feet; finally standing up and walking out of the water in a strictly bipedal posture, with very straight steps. The trackway (B), less complete, shows similar features.

c) some animals of a similar type but smaller left numerous bipedal trackways; at times they include stops of sitting or squatting (F); then one sees the imprint of the metatarsals, hands and tail, all as in the pseudo-genera *Anomoepus* and *Sauropus* of Connecticut (trackways arbitrarily attributed by Lull to primitive ornithopods).

d) finally a long trackway (see E) made by a crawling quadruped (impression of the abdomen or tail) that may be an amphibian or a primitive crocodilian.

This magnificent Moyeni slab is equally rich in physical fossils, worm or larva trackways, etc. It demonstrates, among other numerous points, that a group of the same bipedal reptiles lead an at least temporarily amphibious life in the Red Beds.

II. *The second slab* was discovered by Mme. A. Jaques, near the Phuthisatsana ford on the route from Maseru to Thaba-Bosiu. It is located in the Molteno beds, probably near their upper third. They include almost a hundred footprints, of two different types: a) prints of

strictly bipedal dinosaurs, with very spread feet (I, in the fig.; see above). - b) prints of a plantigrade and tetradactyl bipedal animal of large size (H); already seen by one of us (P.E.) at Libataolong near the bridge over the Orange, these trackways, here more complete, are similar to *Otozoum* of Connecticut and can be reasonably attributed to prosauropods. We were not able to see hand imprints.

This new slab confirms the speculated fact that we suggested in 1956, namely that by their first appearance in southern Africa in the Molteno beds (base of the Upper Triassic?), saurischians were already well differentiated and specialized, and their polyphyletic fauna underwent no notable evolution, perhaps even an impoverishment, following the Stormberg, as much as the trackways can confirm this.

Figure: Some trackways from the Moyeni slab (A - G) and from the Phuthiatsana slab (H - I).